

IN THE SPECIFICATION:

The paragraph beginning at page 5, line 7 has been amended as follows:

The object of the present invention can also be achieved by a biaxially oriented film comprising a laminated structure comprising at least ~~tree layers~~ three layers of A layer/B layer/C layer, wherein the A layer comprises a film composed of polyester and polyetherimide and has a surface roughness Ra_A of 0.2 to 10 nm, and the layer opposite to the A layer has a surface roughness Ra_C of 1 to 30 nm.

The paragraph beginning at page 7, line 5 has been amended as follows:

Examples of diol components include ethylene glycol, 1,2-propanediol, 1,3-propanediol, neopentyl glycol, 1,3-butanediol, ~~1,4-dutanediol~~ 1,4-butanediol, 1,5-pentanediol, 1,6-hexanediol, 1,2-cyclohexanedimethanol, 1,3-cyclohexanedimethanol, 1,4-cyclohexanedimethanol, diethylene glycol, triethylene glycol, polyalkylene glycol, 2,2'-bis(4'-β-hydroxyethoxyphenyl)propane, and the like. Preferably, ethylene glycol, 1,4-butanediol, 1,4-cyclohexanediol, and diethylene glycol can be used, and more

preferably, ethylene glycol can be used. These diol components can be used singly or in combination of at least two components.

The paragraph beginning at page 8, line 6 has been amended as follows:

The thermoplastic resin (polymer 2) of the present invention is a thermoplastic resin other than polyester. In use of polyester as the polymer 2, an effective difference in stretchability ~~less occurs~~ between both polymers during biaxial orientation occurs less possibly due to the similar thermal properties of the polymers, for example, the glass transition temperatures. The use of polyester as the polymer 2 is thus undesirable because micro protrusions are little produced by the polymers used in the present invention.

The paragraph beginning at page 13, line 21 has been amended as follows:

Examples of tetracarboxylic acid and acid anhydride thereof include ethylenetetracarboxylic acid, 1,2,3,4-butanetetracarboxylic acid, cyclopentanetetracarboxylic acid, pyromellitic acid, 1,2,3,4-benzenetetracarboxylic acid, 3,3',4,4'-biphenyltetracarboxylic acid, 2,2',3,3'-biphenyltetracarboxylic acid, 3,3',4,4'-benzophenonetetracarboxylic acid, 2,2',3,3'-

benzophenonetetracarboxylic acid, bis(2,3-dicarboxyphenyl)methane, bis(3,4-dicarboxyphenyl)methane, 1,1'-bis(2,3-dicarboxyphenyl)ethane, 2,2'-bis(3,4-dicarboxyphenyl)propane, 2,2'-bis(2,3-dicarboxyphenyl)propane, bis(3,4-dicarboxyphenyl)ether, bis(2,3-dicarboxyphenyl) ether, bis(3,4-dicarboxyphenyl)sulfone, bis(2,3-carboxyphenyl)sulfone, 2,3,6,7-naphthalenetetracarboxylic acid, 1,4,5,8-naphthalenetetracarboxylic acid, 1,2,5,6-naphthalenetetracarboxylic acid, 2,3,6,7-anthracenetetracarboxylic acid, ~~1,2,7,8-phenanthreneteracarboxylic~~ <u>1,2,7,8-phenanthrenetetracarboxylic</u> acid, 3,4,9,10-perylenetetracarboxylic acid, 4,4'-(p-phenylenedioxy)diphthalic acid, 4,4'-(m-phenylenedioxy)diphthalic acid, 2,2'-bis[(2,3-dicarboxyphenoxy)phenyl]propane, and the like, and acid anhydrides thereof.

The paragraph beginning at page 15, line 6 has been amended as follows:

As an aromatic primary monoamine, for example, primary aniline which is unsubstituted or substituted with alkyl having 1 to 22 carbon atoms is used. Examples of such monoamines include aniline, toluidine, ethylaniline, propylaniline, butylaniline, pentylaniline, hexylaniline, heptylaniline, octylaniline,

nonylaniline, decylaniline, undecylaniline, dodecylaniline, tridecylaniline, tetradecylaniline, pentadecylaniline, hexadecylaniline, ~~heptadecylanine~~ heptadecylaniline, octadecylaniline, nonadecylaniline, eicosylaniline, heneicosylaniline, docosylaniline, and structural isomers thereof.

The paragraph beginning at page 25, line 13 has been amended as follows:

The biaxially oriented film of the present invention may comprise a single layer, but preferably has a laminated structure comprising ~~at last~~ at least two layers including a film layer (referred to as "A layer") having the micro protrusions of the present invention and used as the outermost layer in order to simultaneously impart different properties, i.e., the good film traveling performance or winding performance, and the good electromagnetic conversion property, to the film. Namely, in the film, the A layer is laminated on at least one outermost layer of a base layer (referred to as "B layer"), and the micro protrusions of the present invention are formed on the surface of the A layer. The A layer of the biaxially oriented film of the present invention is a film layer having a flat surface which is used as a magnetic surface in use for a magnetic recording medium. The base layer (B

layer) is generally a thickest layer in the film, and mainly functions to maintain strength and dimensional stability. In a two-layer lamination, a relatively rough surface can be provided on the B layer to obtain the good traveling property. In this case, the polymer used in the base layer is preferably polyester (polymer 1) used in the A layer, or the polymer alloy of the polymer 1 used in the A layer and the polymer 2 used in the A layer. However, that polymer is not limited to these polymers. When the A layer and B layer contain the same polyester (polymer 1), in stretching a laminated film of the B layer and A layer, the polyesters (polymer 1) of the B and A layers can be stretched under same conditions in the same manner. Therefore, the domains of the polyester (polymer 1) present in the A layer due to fine dispersion or micro phase separation are easily stretched to easily express the difference in stretchability between the polyester (polymer 1) and the thermoplastic resin (polymer 2), thereby easily forming the surface protrusions. In this case, the A layer preferably has a thickness of 20% or less of the total thickness of the film because the film forming property is good and the effect of the present invention is further improved. The A layer more preferably has a thickness of 15% or less, most preferably 10% or less, of the total thickness of the film. In the laminated film, the thickness of the

A layer is preferably 0.01 to 5 μm because the film forming property is good and the effect of the present invention is further improved. The thickness of the A layer is more preferably 0.03 to 2 μm, most preferably 0.05 to 1 μm.

The paragraph beginning at page 27, line 8 has been amended as follows:

In the laminated structure, the A layer causing less ~~breed out~~ bleed out of oligomers is laminated to obtain the good property of suppressing the oligomers produced from the B layer.

The paragraph beginning at page 27, line 12 has been amended as follows:

In the laminated structure, the content W_A by weight of the polymer 2 in the A layer and the content W_B of the polymer 2 in the B layer preferably satisfy the following relationships:

$0 \leq W_B \leq 40$, $5 \leq W_A \leq 50$, $10 \leq W_A - W_B \leq 40$,

more preferably;

$0 \leq W_B \leq 25$, $25 \leq W_A \leq 50$, $10 \leq W_A - W_B \leq 40$.

The paragraph beginning at page 31, line 11 has been amended as follows:

In the biaxially oriented film of the present invention having the laminated structure comprising the ~~three layer~~ three layers of A layer/B layer/C layer, the surface roughness Ra_A of the A layer is preferably 0.2 to 10 nm, more preferably 0.5 to 5 nm, most preferably 1 to 3 nm. With the A layer having a surface roughness Ra_A ~~or less~~ of less than 0.2 nm, the friction with the rolls used in the film formation step and processing step is significantly increased to easily cause damage, and deteriorate the traveling performance for the magnetic head in use as the magnetic tape. With the A layer having a surface roughness Ra_A of over 10 nm, the electromagnetic conversion property deteriorates in use as the magnetic tape, and thus the biaxially oriented film is unsuitable for a high-density magnetic recording medium in some cases.

The paragraph beginning at page 32, line 21 has been amended as follows:

The biaxially oriented film of the present invention may further contains a heat stabilizer, an antioxidant, an ultraviolet absorber, an antistatic agent, a fire retardant, a pigment, a dye, a fatty acid ester, an organic solvent such as wax, and the like in a range which does not ~~interfering~~ interfere with the present invention.

The paragraph beginning at page 35, line 5 has been amended as follows:

The thickness of the biaxially oriented film of the present invention is preferably 1000 μm or less, more preferably in the range of 0.5 to 500 μm. Although the thickness of the film is appropriately determined according to the application and purpose, the thickness is generally 1 to 15 μm for a magnetic recording medium, 2 to 10 μm for data or digital video metal powder-type magnetic recording medium, and 3 to 9 μm for a data or digital video metal evaporated-type magnetic recording medium. The film having a thickness of 0.5 to 15 [[m]] <u>μm</u> is preferably used for a capacitor, exhibiting excellent breakdown voltage and dielectric properties. The film having a thickness of 1 to 6 [[m]] <u>μm</u> is preferably used for a heat transfer ribbon, permitting high-definition printing without causing wrinkles and unevenness in printing and over-transfer of ink. The film having a thickness of 0.5 to 5 [[m]] <u>μm</u> is preferably used for thermosensitive stencil printing plate base paper, exhibiting excellent perforation ability with low energy, permitting a change in diameter of the perforated hole according to the energy level, and exhibiting excellent printability in color printing using a plurality of plates.

The paragraph beginning at page 36, line 1 has been amended as follows:

In the biaxially oriented film of the present invention, another polymer layer, for example, of polyolefin, polyamide, polyvinylidene chloride or acrylic polymer, may be further laminated directly or with an adhesive layer or the like ~~provide~~ provided therebetween.

The paragraph beginning at page 36, line 10 has been amended as follows:

By providing a magnetic layer on at least one side of the biaxially oriented film of the present invention, the film can be used as a magnetic recording medium. Although the magnetic layer may be provided on any one or both sides of the film, the magnetic layer is preferably provided on the A layer side in use of the laminated structure film.

The paragraph beginning at page 36, line 16 has been amended as follows:

Preferred examples of the magnetic layer include a magnetic layer comprising a ferromagnetic metal thin film, a magnetic layer comprising a ferromagnetic metal fine powder dispersed in a binder,

a magnetic layer coated with a metal oxide, and the like. Preferred examples of metals which can be used for the ferromagnetic metal thin film include iron, cobalt, nickel, alloys thereof, and the like. As the ferromagnetic metal fine powder used for the magnetic layer comprising the ferromagnetic metal fine powder dispersed in the binder, a ferromagnetic hexagonal ferrite fine powder, ~~a power~~ a powder of iron, cobalt, nickel, or an alloy thereof, is preferably used. As the binder, a thermoplastic resin, a thermosetting resin, a reactive resin, or a mixture thereof is preferably used.

The paragraph beginning at page 47, line 14 has been amended as follows:

[[Those]] The thickness can be measured by using a secondary ion mass spectroscope (SIMS). The concentration ratio (M+/C+) of the element due to the high concentration particles (or PEI) of the inert particles in the range from the surface layer to a depth of 3000 nm of the film and the carbon element of polyester are measured by SIMS from the surface to a depth of 3000 nm in the thickness direction.

The paragraph beginning at page 57, line 5 has been amended as follows:

Next, filming was performed using three extruders. Pellets of polyethylene terephthalate (PET) (B1) having an intrinsic viscosity of 0.62 and substantially not containing inert particles were dried in vacuum at 180°C for 3 hours and supplied to extruder B heated to 280°C. Mixed material (A) of 70 parts by weight of the blend chips prepared by the above pelletizing operation and 30 parts by weight of PET chips having an intrinsic viscosity of 0.65 was dried in vacuum at 180°C for 3 hours and supplied to extruder A heated to 280°C. Pellets of polyethylene terephthalate (PET) (C1) having an intrinsic viscosity of 0.62 and containing 0.3 weight percent spherical silica particles having an average diameter of 0.17 μm and 0.05 weight percent spherical silica particles having an average diameter of 0.3 μm were dried in vacuum at 180°C for 3 hours and supplied to extruder C heated to 280°C. Next, these were converged in a T die so that polyester composition (B1) became a base layer and polyester composition (A1) and polyester composition (C1) became outermost layers, and brought into tight contact with a cast drum having a surface temperature of 25°C by applying electrostatic charge, and solidified by being cooled to prepare a

~~thee-layer-laminated~~ three-layer-laminated unstretched film (the ratio of thicknesses of the laminated layers A1/B1/C1 = 0.07/5/1).